Customer No.:31561
Application No.: 10/709,767
Docket No.: 13292-US-PA

AMENDMENTS

To the Specification

Please amend paragraphs as follows:

[0011] The printhead ink output unit 211 includes the enable circuit 215, the nozzle jetting circuits 225-231 and the nozzle 233. The enable circuit 215 includes a plurality of MOSFETs 217, 219, 221 and 223. The drain (current input) of each MOSFET will receive the corresponding control signal in the bus control signal set 203. The gate (command input) of each MOSFET will receive the corresponding selection signal in the bus selection signal set 209. When the drain and the gate of the same MOSFET are enabled at the same time, the source (output terminal, current output) will generate a current signal to drive the coupled nozzle jetting circuit. For example, the MOSFET 217 is coupled to the nozzle jetting circuit 225 and the MOSFET 219 is coupled to the nozzle jetting circuit 227. Then the nozzle jetting circuit will jet out the ink out of the nozzle [[~~223~~]]233. The printhead ink output unit 213 works the same as the printhead ink output unit 211.

[0030] FIG. 3 is a circuit diagram of a printhead controller in accordance with an embodiment of the present invention. As shown in FIG. 3, the printhead controller includes the buffer circuit 301 and the ink jetting circuit 303. The buffer circuit 301 includes the inverters 305 and 307 connected in series. The working driving voltages of these two inverters are controlled by the same address signal A1. The input terminal of the inverter 305 receives and inverts the selection signal SEL. Then the inverter 305 outputs the inverted signal via the output terminal of the inverter 305 to the

inverter 307. After the inverse operation by the inverter 307, the buffer signal is outputted from the output terminal of the inverter 307 to the ink jetting circuit 303 via the transmission line 317. Here, as can been understood, the buffer signal output from the buffer circuit 301 is also serving as a switching signal to switch ON/OFF the MOSFETs 309 and 311.

[0040] The buffer circuit set 809 of the black printhead control circuit 807 of the printhead module 827 receives the address signal and the selection signal via the transmission lines 823 and 825. After receiving the buffer signal, the ink jetting circuit 811 will determine whether or not to jet out the ink based on the buffer signal. If it is determined to jet out the ink, the ink will be jetted out via the nozzle set 813.

[0041] The operation of the color printhead control circuit 815 is same as the black printhead control circuit 807. The buffer circuit set 817 of the color printhead control circuit 815 of the printhead module 827 receives the address signal and the selection signal via the transmission lines 823 and 825'. After receiving the buffer signal, the ink jetting circuit 819 will determine whether or not to jet out the ink based on the buffer signal. If it is determined to jet out the ink, the ink will be jetted out via the nozzle set 821.

[0042] In the embodiment mentioned above, the address signals and the selection signals of the black printhead control circuit 807 and the color printhead control circuit 815 are sent by the transmission lines 823, 825, and [[~~825~~]]825'. That is, the ink jet printer can control the operation of the two printheads in the printhead set

827 by using three signals transmitted by the printhead drive unit 801. It is noted that when one of the two printhead is driven, the voltage level of the selection signal of the other one printhead is low. If more cartridges are required, only addition of new corresponding selection signals is required. The new added printhead control circuits are only required to receive the same address signals.